

Serial No. 10/830,160
67,008-084
S-5708

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows. This listing of claims will replace all prior listings.

1-10. (CANCELED)

11. (ORIGINAL) A method of controlling a coaxial rotor system comprising the steps of:

- (1) locating a first rotor system and a second rotor system along a common axis, the second rotor system spaced an axial distance from the first rotor system; and
- (2) independently controlling the first rotor system and the second rotor system to maintain a minimum rotor blade tip separation between a rotor blade tip of the first rotor system and a rotor blade tip of the second rotor system.

12. (ORIGINAL) A method as recited in claim 11, wherein said step (2) further comprising the step of:

independently controlling the first rotor system and the second rotor system through one or more rotor blade mounted control surfaces located on each rotor blade of the first rotor system and the second rotor system.

13. (CURRENTLY AMENDED) A method as recited in claim 12, further comprising the step of:

independently pitching each of a multiple of rotor blades of the first rotor system a multiple of times during each rotation of the first rotor system through a higher harmonic control system; and

independently pitching each of a multiple of rotor blades of the second rotor system a multiple of times during each rotation of the second rotor system through the higher harmonic control system.

14. (ORIGINAL) A method as recited in claim 12, further comprising the step of:

Serial No. 10/830,160
67,008-084
S-5708

_actuating a tip brake on at least one of a multiple of rotor blades of the first rotor system to maintain the minimum rotor separation between the first rotor system and the second rotor system.

15. (ORIGINAL) A method as recited in claim 11, wherein said step (2) further comprising the step of:

independently controlling the first rotor system and the second rotor system through a respective first pitch control assembly and second pitch control assembly located remotely from the first rotor system and the second rotor system.

16. (CURRENTLY AMENDED) A method as recited in claim 15, further comprising the step of:

independently pitching each of a multiple of rotor blades of the first rotor system a multiple of times during each rotation of the first rotor system through a higher harmonic control system; and

independently pitching each of a multiple of rotor blades of the second rotor system a multiple of times during each rotation of the second rotor system through the higher harmonic control system.

17. (ORIGINAL) A method as recited in claim 11, wherein said step (2) further comprising the step of:

limiting a flight envelope to maintain the minimum rotor separation.

18. (ORIGINAL) A method as recited in claim 11, wherein said step (2) further comprising the step of:

coupling a rotor blade bend-twist relationship on each of a multiple of rotor blades of the first rotor system and the second rotor system to maintain the minimum rotor separation between the first rotor system and the second rotor system.

Serial No. 10/830,160
67,008-084
S-5708

19. (ORIGINAL) A method as recited in claim 11, wherein said step (2) further comprising the step of:

limiting the minimum rotor blade tip separation to approximately 3 percent of a rotor diameter of the first rotor system.

20. (CURRENTLY AMENDED) ~~A method as recited in claim 11, wherein said step (2) further comprising the step of:~~

A method of controlling a coaxial rotor system comprising the steps of:

(1) locating a first rotor system and a second rotor system along a common axis, the second rotor system spaced an axial distance from the first rotor system; and

(2) independently controlling the first rotor system and the second rotor system to maintain a minimum rotor blade tip separation between a rotor blade tip of the first rotor system and a rotor blade tip of the second rotor system and spacing the first rotor system and the second rotor system along the common axis an axial distance less than 10 percent of a rotor diameter of the first rotor system and the second rotor system.

21. (ORIGINAL) A method as recited in claim 11, wherein said step (2) further comprising the step of:

adjusting the minimum rotor blade tip separation in response to an area of a flight envelope.